

THE LEISURE HOUR.

A FAMILY JOURNAL OF INSTRUCTION AND RECREATION.

"BEHOLD IN THESE WHAT LEISURE HOURS DEMAND,—AMUSEMENT AND TRUE KNOWLEDGE HAND IN HAND."—*Courier*.



TUFFEY TAMED.

BOY AND MAN. PART II.

CHAPTER XIII.—IN THE BENCH.

"When will occasion smile upon our wishes,
And give the torture of suspense a period?
Still must we linger in uncertain hope,
Still languish in our chains and dream of freedom?"

—*Johnson*.

WILLIAM GOODCHILD paid an early visit to the office of Mr. Fisher, his father's solicitor, in Lincoln's Inn. Mr. Fisher lived in the country,

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and had not yet arrived; but Mr. Hawkes was in, the clerk said, if he would like to see him.

"Who is Mr. Hawkes?"

"Mr. Hawkes takes most of the general business now," was the answer. "He has lately joined the firm as managing clerk, and is himself a regular solicitor, the same as Mr. Fisher."

"I will see him," Willy answered, and was shown into his room. They recognised each other in a moment.

L L

PRICE ONE PENNY.

"Hawkes major!"

"Goodchild minimus!"

"Who ever thought of seeing you?"

"It's an agreeable surprise, at all events. Did you not know that I was here?"

"I had no idea of it, but I am very glad. I came on business, to see Mr. Fisher; but you'll do as well. I want you to come and see my father; he has got into a sad mess."

"Tell me all about it."

It was soon told, so much of it, at least, as was necessary to explain the actual position.

"Those Slocums are a bad set," said Hawkes.

"How did your father get into their hands?"

"Bootle—you remember Bootle?—he introduced Slocum to him as an old schoolfellow."

"Bootle! Oh, ah, yes. Do you know Bootle?"

"I have met him once; I don't care about him. I knew him at Bearward's, of course."

"He may be useful; I think I'll go and call on him at once. He used to be rather a muff, more fool than knave, I thought; though I dare say he would not like to be considered so. I may perhaps get something out of him, and shall have a better chance if I go before Slocum has time to put him on his guard. I'll meet you at the lock-up afterwards."

"I am going there now," said Willy, "and will wait till you arrive."

Mr. Hawkes took a cab immediately to Somerset Street. Mr. Bootle was not at home, the servant said; but Mr. Hawkes fancied from her manner that she was not speaking truth; so he affected not to hear her, but desired her to show him up, in such a matter-of-fact way, that the girl turned and led the way at once upstairs, and pointed to the door of his room. Mr. Bootle was lying on the sofa reading a paper; he started up with much trepidation, but appeared not a little relieved on seeing a face which he remembered. They talked for a few minutes about Cubbinghame, and then Mr. Hawkes told Bootle he had called on business.

"You know something about this affair between Slocum and Goodchild," he said; "it has all arisen out of the false alarm the other day on the Stock Exchange. The Slocums—there is a large family of them—seem to have had something to do with it; it will all come out; there is a large reward offered, as I suppose you know, for the discovery of the conspirators, as they are called. Somebody, of course, will peach; I do not mean my client to pay a farthing of the money which Mr. Slocum claims from him until the affair is cleared up, not if he lies in prison for a month."

"Your client! Do you mean Mr. Goodchild?"

"Of course I do."

"You don't mean to say he is in prison?"

"Yes; he is in old Slocum's sponging-house. Did you not know it?"

No! Mr. Bootle did not know it; that was evident from his looks. He broke out into passionate abuse of Slocum.

"He promised me he would not do anything to Goodchild," he exclaimed; "he swore he would not. I wish Slocum was drowned—I do! I wish I had been drowned myself before ever I had seen him!"

"Now look here," said Mr. Hawkes; "I see how it is. This Slocum has been making a tool of you for his own purposes."

"He just has."

"But I know you better than he does; we both of

us owe Mr. Goodchild something. We played poor Minimus a trick which might have killed him; I don't think he has ever quite got over the effects of it. It is in your power to do him some good now; and I believe you will be glad of the opportunity."

"I will, you may depend on it."

"That's right, old fellow! Let us put our heads together then, and see what we can do. Tell me, in the first place, all you know about this business."

Mr. Bootle began to reflect. Where should he begin? Where should he stop? Angry as he felt with Slocum for his treatment of Mr. Goodchild, willing as he might be to assist the latter, he had himself to think of. How could he make disclosures without compromising his own safety? A coward at heart, he resolved that he would not say another word to Mr. Hawkes, lest he should bring himself into trouble. He drew back, therefore, with alarm from the beginning of a confidence which must necessarily end in a confession; and Mr. Hawkes, with all his powers of persuasion, could not extract any useful information from him.

"Promise me one thing," said the lawyer, before he left him; "promise me that you will be no more led or persuaded by Mr. Slocum. Your connection with him is, I assure you, full of danger; he will get you into trouble and if you see your way to help poor Goodchild out of his difficulties, come and tell me: you may place confidence in me; I will not take any advantage of you; but on the contrary, will do my best to get you out of this discreditable business. Think of it, and come and see me; at my home if you prefer it; we shall be more private there."

Bootle made no promise, but took down the address, and resolved to be guided by circumstances.

"I can make nothing of him at present," Mr. Hawkes reported to his client at the sponging-house. "He knows something, if only he could be prevailed upon to tell it. We must wait and watch. In the meantime, the sooner you leave this place the better."

"Oh, yes!" said Mr. Goodchild, and Mr. Armiger and the younger Goodchild, who were present, both exclaimed, "Yes; certainly."

"Of course you must remain in custody for the present," the lawyer continued. "There is no way of recovering your liberty except by payment of Mr. Slocum's claim, and that you must not think of. But you had better get out of this den at once. I'll arrange it for you this afternoon."

"But where am I to go?"

"To the Queen's Bench, I'm afraid; you'll be better off there than here, and more out of this fellow's reach, to say nothing of the expense."

"The Queen's Bench Prison do you mean? I thought it might all have been arranged in a day or two; it is surely not worth while changing for so short a time."

The Queen's Bench Prison seemed to Mr. Goodchild much more formidable, if only for its name, than any private sponging-house, just as "Bedlam" sounds more hopeless than a private lunatic asylum. He pleaded earnestly to be allowed to stay where he was for another night or two, but Mr. Hawkes was inexorable. Mr. Goodchild had told him of his interview with the younger Slocum on the previous evening, and how nearly he had been persuaded to sign the contract for the sale of the house to him, and he was resolved to place him beyond the reach of

such temptation. The necessary forms were completed the same afternoon, and poor Mr. Goodchild was introduced through the two dismal lodges into the high-walled enclosure of the Queen's Bench Prison; and then he felt himself indeed a prisoner, and seemed for a time to lose all heart and hope. He was so much depressed in spirits that his son resolved to stay with him all night; and contrived, with that view, to get himself locked in. He almost wished that he had not placed the affair in his lawyer's hands, and lay awake all night upon a sofa in the room temporarily prepared for his father's use, thinking whether it would not be better to send for Slocum in the morning and complete the contract. A feeling of anxiety took possession of him lest the conditions which had been proposed the night before should now be refused, and harder terms required. He longed for the morning that he might go and see Slocum. "He shall have the house," he said to himself, "if that will satisfy him. We should very likely have to sell it at last, and in the meantime this misery and worry would kill my father."

But when the morning came other counsels prevailed. Mr. Hawkes was urgent that no compromise should be made, and held out expectations of a speedy and satisfactory termination of the business. Consequently, Mr. Goodchild remained in the Queen's Bench Prison, and after a few days became more reconciled to his lot, and found that there were many little alleviations of it, and many personal comforts to be had which he had at first supposed to be impossible.

After all, it was not such a very bad place, being a prison, as might have been supposed. The high brick walls, capped with revolving spikes, shut out no view which could have afforded any pleasure to the sight, while it ensured a degree of quietness from the incessant roar of wheels upon the stones which was scarcely to be obtained anywhere else in London. At the same time, it formed an excellent racket-court, which was constantly in use, though why men should choose to play raquets in long dressing-gowns and slippers, as many of them did, it would be difficult to say. There was a block of houses for lodgings, very superior to many of those outside the walls, and much more airy and wholesome. There was a coffee-house, a tavern, a reading-room, and a library; and shops for necessities. Debtors, who could have paid their debts and would not, might live there in tolerable comfort; and debtors, with respect to whom these conditions were reversed, found there at least a respite from the daily persecutions of duns and from the harassing game of hide-and-seek which had been going on for weeks, or perhaps months, before the day of their incarceration came. Of course there were many weary spirits; many hearts pining and longing for their homes; many to whom the thought of durance vile was degrading and intolerable; but generally there was an air of tranquillity, if not of enjoyment, among the inmates which a stranger would not have expected to behold.

Mr. Goodchild was usually to be found in the mornings loitering near the gate of the inner lodge waiting for his son. This was a favourite haunt with all new men, who were constantly expecting a lawyer or a friend to come and do great things for them. William Goodchild paid daily visits to Mr. Hawkes, but did not bring back any cheerful news to his father, who often gave way to fits of impa-

tience, and would resolve nearly every evening to see Slocum the next day, and arrange matters somehow. But when the next day came, and Willy returned, and other friends came to see him, he became for the time more resigned. "It is not so very uncomfortable," he would say; "it's not half so bad as Slocum's. I can put up with it a little longer, only I wish Mr. Hawkes would say what prospect there is of bringing it to an end. If the house is to be sold, it may as well be sold at first as at last." But Mr. Hawkes could only say that he hoped to see his way more clearly in a few days, and would not consent that his client should make any compromise at present.

Mr. Sparrow, of course, came frequently to see Mr. Goodchild. To him the air of a prison seemed to have quite an exhilarating effect. He shook hands with Mr. Goodchild, the first time he saw him there, in the most jovial manner, and was more than once on the point of calling him "old fellow" again.

"How quiet and pleasant it is," he said, "after the noise and mud and everything outside. I should not mind having a lodging here myself. If you don't come out soon I think I shall come and live here with you."

"I'll come out as soon as I can," said Mr. Goodchild; "you may depend upon it."

"Of course you will; in a day or two at furthest. But I should not mind changing places with you, you know; just for the fun of it. I wonder whether they would allow such a thing. One man ought to be as good as another for any use he is here, you know. Perhaps they would not like to have a Sparrow, though. I wish you were a sparrow, old fellow—Mr. Goodchild; then you could fly over the walls in no time. Has Nott been here?"

"Nott came this morning, and brought a dozen bottles of your good ale, Mr. Sparrow. It is very kind of you, but I hope I shall not stay here to drink it all."

"Oh, I'll help you; and there's a lot of fellows about in dressing-gowns who will be glad to have what's left. That's one reason why I sent it—that you may give it away, you know, when you go out. Where's Willy?"

"Gone to see Mr. Hawkes."

"Then I'll stay till he comes back, and have some luncheon with you."

"I'm afraid I have nothing very good to offer you," Mr. Goodchild began.

"Never mind. By-the-by, I took the liberty of ordering my luncheon to be sent in here. Nott will bring it presently, so we shall want nothing but a table-cloth and a knife and fork."

Nott arrived soon afterwards with a pigeon pie and some other good things. He laid the cloth, drew some corks, and then retired outside the door to wait till he should be wanted.

"Nott is a most useful person," said Mr. Sparrow, talking very fast to silence Mr. Goodchild, who had begun to protest about the luncheon. "He is occupied all day long for somebody or other: I thought when I engaged him as my servant that I should never be able to find employment for him; but he can turn his hand to anything; he goes about the parish wherever John sends him, with a basket full of good things for the sick, does a little nursing here and there, cleans my shoes, waits at table, and takes care of everything. Nott considers himself a highly

respectable member of society. I don't suppose you would get Nott to throw a cat'n wheel or to walk upon his hands now, even in private, for any consideration; and yet he showed John the soles of his feet on a level with his face twice the first night he came to the school, and wanted to teach him how to do it. Nott says he has learnt to walk uprightly now, and means to do it; and I believe he does."

With such conversation Mr. Sparrow did his best to cheer up Mr. Goodchild's spirits. And so many days passed by. Sometimes Mr. Hawkes would send a cheering message: he had learnt something, or expected to learn something, which would lead to something else and probably bring about an early settlement; but more frequently the burden of his song was, Wait, wait; and Mr. Goodchild waited with as much patience and resolution as he could.

CHAPTER XIV.—"THE PRAYER OF FAITH."

"Ah, sir, you rather go and pray the gods;
For, being a much better man than I,
They will the sooner hear your prayers."—*Terence.*

MR. AND MRS. ARMIGER had other cares upon their mind besides the sorrow and distress which Mr. Goodchild's imprisonment had brought them. The boy who had been sent home from Wimbledon was laid up with fever in Paradise Court, and there were several other fresh cases. Mr. Armiger felt it to be his duty to go in and out among the sufferers, rather with the hope of doing some good to those about them who were well, than of administering spiritual instruction and consolation to the sick. For himself he had no fear, but for his wife his anxiety was constant. The baby was watched with no less apprehension; and at length his anxiety became so great, that after a great deal of consideration, he decided that it would be better for them all that wife and child should be sent away out of the parish. The house at Wandsworth was still available; and though Mr. Goodchild was not there to act the part of host, there could be no reason why his daughter should not occupy it with her baby and nurse during his absence. Mrs. Armiger at first protested that she would not leave her husband; but for the sake of the child, and on the distinct understanding that Mr. Armiger should come sometimes, she at length consented. It was a great load off the curate's mind when this point had been attained; he felt now that he could go freely to his work and give himself up to it without fear or interruption. The ragged-school continued to claim a great deal of his attention, and on those nights when it was open he slept always in Joy Street. Miss Goodchild had returned to her father's house at Weybridge; and Mr. Sparrow, after he had paid a visit there, had settled steadily to work in the brewery by day, and assisted by night in the ragged-school whenever it was open.

The school treat had been a great success; and now, by the help of some of the parishioners, they were enabled to supply a crust of bread-and-cheese or a mess of broken victuals to every boy who attended there. This was not only an attraction for the boys, but a help for the teachers, enabling them to lay down certain rules for conduct, and to enforce them; no longer fearing that the boys who had begun to know them, and to understand the motives of kindness by which they were actuated, would take offence at any reasonable exercise of authority. If any difficulty arose, it was generally settled by an appeal to the boys themselves, who

were not deficient in good sense, and seldom failed to justify the expectations of those who trusted them.

The fever raged chiefly among the children. Some of them were removed to the Fever Hospital; but others were kept at home, and nursed there, though there might be two or three families in a house, and two or three of a family living in one room. It was impossible to prevent such evils, and all that Mr. Armiger could do was to visit each house in the infected districts, and to persuade the inmates to observe such precautions as were within their power, though few and inefficient, to prevent the spread of the infection.

One evening while he was in the school, the latch of the door was lifted, and the rough, unshaven face of Tuffey appeared in the doorway. He did not enter the room with the bold, insolent manner which had characterised his former appearance, nor had he anything to say about "edication" or "the rights of man," but stood at a distance, and beckoned to the curate with his head. Mr. Armiger went to him.

"My boy wants you to come and see him," said Tuffey, without looking at him: "he's bad."

"Not fever, I hope?"

"I'm most afraid it is; he has been in and out among it."

"I'll call to-night, as I go home from school. How long has he been ill?"

"Day afore yesterday." The man looked down at the floor while he was speaking; then took his hat from his head, as if he had forgotten to remove it sooner, closed the door, and departed.

Yes, it was fever: there were two other cases already in that court; and it was not to be wondered at; for under the rotten boards, where they were broken through, Mr. Armiger could see, as he entered Tuffey's room, a black stagnant puddle, filling the house with foul mephitic air. There were but two rooms in the house, and in a corner of one of these, level with the street, Tuffey's poor sick boy was lying.* There was a small fire in the grate very near his head, at which his mother, who had just come in from charring, was preparing some things for her child.

The boy looked up eagerly as Mr. Armiger approached, but did not speak. The curate sat down by the side of—well, that whereon he lay, and began to talk to him, asking him first as to his pains, and encouraging him to hope for relief from them; and then directing his thoughts to a better Physician than any to be found in London or in the world. He spoke of Him who is the Lord of life and death; who when He was on earth could heal the sick with a look or a touch, and forgive sins also. He told him of the nobleman's servant who was sick of a fever, and whom Jesus healed in answer to his master's prayer, while yet at a distance; and reminded him that the same merciful Saviour was no farther off at that moment from that poor room in which they were then talking together than He was of old, when He went in and out visibly among His suffering creatures. He told him in earnest, heartfelt words of that Saviour's love for sinners, which brought Him down from heaven to take upon Himself our infirmities and bear our sicknesses, that through His sufferings we might be healed. Then he prayed by his side—a short, simple, fervent prayer; good alike for

* See in *Varieties*, p. 544, useful hints to those visiting cases of fever and other infectious diseases.

the child and for his weeping mother; good also for the grizzly infidel who stood and leaned against the wall instead of kneeling, but who was listening nevertheless, with humbled looks and head uncovered.

"I think you have no other child but this?" Mr. Armiger said, as he was leaving.

"No, sir; I've buried two," the wife replied.

"What ages?"

"Very little ones, both of them."

"Then don't say you have no others; think of them in a better place than this, and safe in God's keeping."

"It's hard to lose them," she replied—"and hard to keep them sometimes. They are better where they are, no doubt. But, Dick! Oh, Dick! my lad, I can't lose you."

She said, or rather moaned out the words as if meditating to herself. Her husband did not lift his head or speak. Mr. Armiger promised to send a supply of things that might be useful for the sufferer. His mother would not hear of his removal to the hospital; "the other two had died there," she said, "three years ago; she could not let this one go the same way. She would nurse him herself, and see the last of him if die he must; but she *couldn't* lose Dick!" The boy looked up at Mr. Armiger with his great, bright eyes, as if unwilling to lose sight of him, and muttered, "Come again." "Yes," the curate answered, "I will come again to-morrow," and so left him.

The next day, at evening, Mr. Armiger again visited Paradise Court. His reason for going there at a late hour was that he might meet with the father of the boy, old Tuffey, who was, or ought to be, at work during the day. Tuffey was sitting before the fire, and held up his hand as the curate entered, saying in a whisper, "He's asleep." It was a broken sleep, however, and did not last long; the boy opened his eyes, uttered a few incoherent words, pushed aside the bedclothes, and sat up; then, without taking notice of any one, threw himself back again impatiently upon his pillow.

"He don't know nobody," said Tuffey.

"Where is his mother?" Mr. Armiger asked.

Tuffey pointed to the stairs. "Gone to lie down," he said; "she has been over him all night and all day. I sent her upstairs for a hour or two."

"I'm glad of that," said the curate. Then he sat down and talked to the man, not as if he would argue with him or persuade him, but as if the solemn truths which he had to teach could not at such a time as that be disputed; assuming them to be felt and understood in the heart, though they might be rejected with the lips.

Tuffey listened in silence, and showed no desire to argue. "Do you think the lad will get better?" he asked; "the doctor won't give no opinion of him."

"I hope he will," Mr. Armiger replied; "I should have more confidence if you would help a little."

"I?" said the man, raising his head; for he felt that the curate's eyes were fixed upon him; "what can I do? Only tell me; I'd do anything; I'd slave for him; he's the only one I've got now; only tell me what to do, and see if I don't do it."

"If you would, pray for him then."

Tuffey turned away suddenly. "What's the good of praying," he said, "when a man don't believe in it? I can't argy the pint now. You can pray for him better nor me."

"But what's the good of my prayers, any more than yours, if there's nothing in it?"

"I don't want for to argy; I want the boy to get well; that's what I want."

"Then, my good fellow, why should you throw away a chance? Praying can't do him any harm, as you'll admit; and I think it will do him good. Why not try it?"

There was a pause. "I don't know about not doing no harm," Tuffey answered at length. "If there was anything in it, I should be a'most afraid to pray for anybody as I cared for, for fear as it might go contrairy ways. Such as you would have a better chance; and you know how to do it; you do believe in it."

"Ah, but a father should pray for his own children. Did you ever pray for the two that died? No? Then don't let this poor boy go after them to the churchyard without even asking God to spare him."

"What am I to say? How am I to begin?"

"Kneel down with me, and I'll find words this time."

He did so. It was the prayer of a sinner, of two fellow-sinners, asking for the mercy which both alike required, which both alike might have for asking; pleading also for the young life fading away, as it seemed, even then, before their sight—the sins of the father visited upon the children. Tuffey started visibly when he heard those words; he coughed and seemed as if he were choking; it was a new idea, and it stuck to him. The mother had come down in silence from the room above, her anxious ear roused by the earnest tones, and had knelt down unseen by her child, wondering in her heart to see those stubborn knees bent in prayer for the first time within her knowledge, and to hear those lips pronouncing, in a whisper, "Amen!"

"He *will* get better now," she said, as they stood afterwards looking at the child; "he will mend now; I'm sure of it. John, my lad," leaning her hand upon her husband's shoulder, "I do believe he'll get up again after this."

The father shook his head. "Visited upon the children," he murmured to himself; but he took his turn to watch through the greater part of that night and the following, and tried to pray, repeating the curate's words, and sometimes putting together a few words of his own, and always, after he had done so, looking at the boy to see if he were quieter, feeling his hand in the hope of finding it grow cooler, and muttering to himself, "He'll, maybe, get up again. I think somehow he will!"

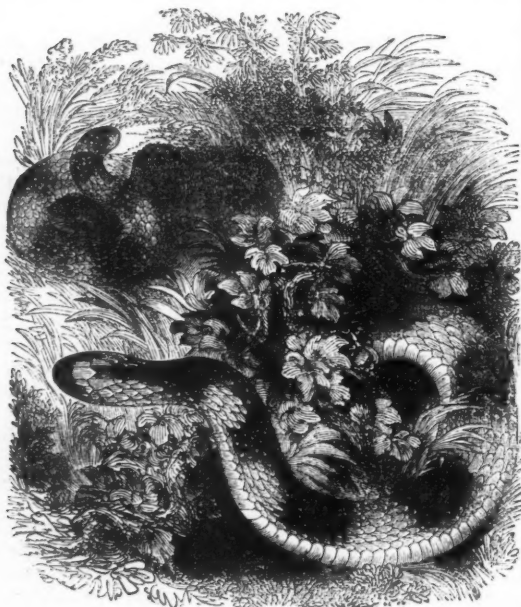
It is written, "The prayer of faith shall save the sick," and faith, if it be but as a grain of mustard-seed, is faith, and can remove mountains. There was faith enough in Tuffey's prayers to keep alive in him some hope and expectation of an answer to them, which cannot always be said of those who pray more frequently and more grammatically. Poor little Dick! Tuffey and his wife are not only praying for his cure, but expecting it. The hope is even growing in them while the case appears to become more hopeless, for they are praying more earnestly and often, though for the most part in silence, and are encouraging each other to be of good comfort, for "the turn will come soon, surely." And if their simple faith should be rewarded, their neighbours will remark, "Ah! you always said he would get up again; you had a feel-

ing that he would"—a presentiment would be the word with grander people. And those two alone will know that the word of Divine promise has been fulfilled to them, "According to your faith be it done unto you."

ON SNAKES.

II.

THE krait and the daboia, the latter in size and appearance somewhat resembling our common viper, are, after the cobra, the snakes most destructive to human life. Equally venomous, but not so often met with, is the banded krait, or *Bungarus*



BANDED BUNGARUS.

found throughout India and Burmah, living in holes in the ground, and unaggressive towards man, though retaliating fiercely when attacked. The green-tree snakes of India are also poisonous, but not so deadly as those already mentioned; as also is the little halys, a serpent which shows its relationship to the rattlesnake of America by having a small horned knob at the extremity of its tail.

The list of the deadly snakes of India would not be complete without some notice of the sea-serpents of the Indian Ocean.

The Great Sea-Serpent may or may not exist, and whether it does or not, it or something mistaken for it will probably continue to be seen at intervals, and form the subject of newspaper paragraphs during the dull season. But there is no doubt regarding the sea-serpents of the Indian Ocean, nor of their highly venomous fangs. They do not usually exceed the common viper in size, although one species is said to attain a length of four feet, and they swim with great rapidity and grace. Various organs in these snakes are greatly modified to suit the element in which they live; thus the extremity of the tail is flattened out like a paddle, to aid their locomotion; their eyes are so exclusively adapted to the watery medium in which they live, that when cast ashore

they become almost blind, while the nostrils, which in land-serpents are placed on the sides of the face, are in those placed on the forehead, so that they do not require to raise the head above the water in order to breathe, for it must be remembered that all reptiles, equally with ourselves, are air-breathers, although many of them can stay considerably longer under the water. Those sea-serpents, though timid creatures, seeking to avoid man, are greatly dreaded by the Indian fisherman, as they often get caught in the nets, and are thus conveyed into their boats, where, unnoticed, they may be handled or trampled upon, and thus tempted to use their fangs. These fangs are supplied with what is probably the deadliest of all snake poisons, for they seem to be the only serpents whose bite proves fatal to other venomous snakes. In all other cases a poisonous snake may bite itself, or another poisonous snake, with impunity, when the same bite would kill an innocuous serpent; and it is matter of fact that in this way great numbers of the latter are killed. The sea-snakes are found most abundantly in the Bay of Bengal, but they extend over a wide area of the warmer seas of the globe. Fresh-water snakes also occur in India, but they differ from those found in salt water in being innocuous, and in not having flattened tails. Both kinds live almost exclusively on fish.

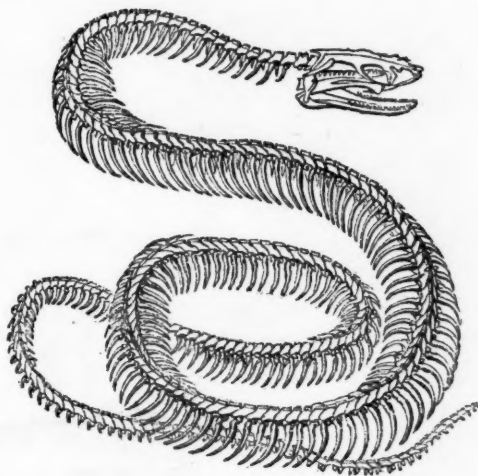
In answer to the question, Is there any antidote to the venom of a poisonous snake? Dr. Fayer, after long-continued experiments, in which all the reputed antidotes were put to the proof, comes to the conclusion that there is not. Many snake-bitten Hindoos recover, and in such cases quack medicines, or the still more worthless incantations of the serpent-charmer, get due credit for the cure, when it is really owing to the fact that the wound had been inflicted by a snake of the less venomous sort, or if not so, that its poisoning powers had been temporarily weakened, as they always are when frequently used within a short period. The only chance of surviving the bite of such serpents as the cobra and daboia lies in the instantaneous amputation of the limb affected—if happily it be a limb—or by immediately applying a ligature above the wound so as completely to stop the circulation in the part affected, sucking the wound at the same time, and then cauterising it. The Hindoos often apply a live coal or explode gunpowder on the bitten part. The poison, however, is so subtle, and makes its way so rapidly into the blood circulation, that unless such remedies are in full operation almost as soon as the bite is inflicted, they are in vain. How seldom the necessary appliances will be forthcoming on a moment's notice may readily be imagined. Dr. Fayer made experiments on dogs and fowls in order to test the various so-called remedies, and the result always proved how hard it was to intercept the poison before it had got into the system. Thus, at 3.31 in the afternoon a dog was bitten in one of its limbs by a cobra. Five seconds after, a ligature as tight as two men could draw it was applied, and the wound thoroughly cauterised; yet the poison had outrun them, and the dog died at 3.42. The blood of a snake-poisoned animal is itself poisonous, and there are recorded instances of the venom being thus transmitted through three animals with fatal results. There is also the case of a Hindoo mother who was bitten while asleep during the night by a poisonous snake, and who, hardly aware of the danger she herself was in, shortly afterwards put her infant to

the breast. In four hours after the bite both mother and child were dead. It has often been alleged that the most deadly snake poison may be swallowed with impunity, but this does not seem to be fully borne out by recent researches, although when taken in this way its power is greatly weakened, while there is always the danger of its gaining entrance into the circulation by means of some slight, and it may be unnoticed, scratch on the skin of the mouth or gullet. The poison itself may be diluted with water, may be dried and kept for years, without losing aught of its deadly properties.

It is possible that an antidote may yet be found to snake poison; but the most certain, and probably the quickest way of overcoming this Indian plague, will be by getting rid of the snakes; and in a country so densely peopled and so poor, a small reward—general over the whole peninsula—for the head of every poisonous snake might be as effectual in extirpating venomous snakes as a similar reward was in early times in ridding England of wolves. Besides, India possesses in its fowls, its adjutant birds, and in a small mammal known as the mungoos, natural enemies of the whole snake tribe, which destroy great numbers, especially of the eggs and young; and by encouraging the increase of these creatures the danger of snake-bite might be greatly lessened throughout the inhabited parts of the country. Certain of the West Indian islands are so infested with poisonous reptiles, that of late they have seriously affected the cultivation of the land. The introduction of those snake-eating animals—the mungoos of India, the secretary bird of Africa, and the Australian kingfisher—has been recommended, and, to a limited extent, the first of these has been introduced, and has been seen to attack and overcome its New World enemies with the same freedom from danger with which it carries on its operations against the deadly snakes of India. But it is doubtful whether this mammal or those birds will ever become so naturalised as to live and breed rapidly enough to exterminate creatures which bring forth as many as two dozen young at a time. The West Indians, if the nature of their crops allow of it, will probably better attain their object by letting hogs run wild over the infested islands, for on the adjacent continent of North America, over the greater part of which the venomous rattlesnake occurs, it is found that wherever the hogs are allowed to roam at will, there the rattlesnake is all but unknown. The districts where the hog is thus found, and the snake not found, are so exactly co-terminous, that one would be justified on this ground alone in attributing the absence of the latter to the presence of the former, but it has likewise been matter of observation that the hog attacks and destroys the rattlesnake with impunity. The reptile itself seems fully aware of this, for it at once takes to flight on the appearance of this enemy.

While India possesses no fewer than twenty-five poisonous species, excluding sea-snakes, it has a much longer catalogue of the innocuous. But although the latter, numbering over 100 species, are totally unprovided with the poison apparatus, they are not all harmless, one group of them—the boas—attaining a size and strength which make them as formidable to man as their poisonous brethren. Boas, or pythons—as the Old World forms are called—often attain a length exceeding thirty-feet; their teeth are sharp and solid, and

point inwards, so that their prey once in the mouth, the boa itself cannot release it. There is a story told of a python in the Zoological Gardens that seized its rug, probably mistaking it for a wool-covered animal; and though it would willingly have rejected the unsavoury morsel after its reptilian intellect had perceived the mistake, this could not be effected, and the piece of carpet had to be taken into the stomach of the creature, where, having got well covered with mucous matter, the python was at length enabled to vomit its indigestible meal. These serpents live by the margins of rivers and marshes, where, suspended by the tail from the overhanging trees, and with the head close to the surface of the water, they hang motionless like the surrounding branches, waiting for the coming of their prey to drink. They suspend themselves by means of two little hooks, situated at the origin of the tail, and, strange to say, anatomists have found that these hooks are the rudiments of what constitute the hind limbs in all quadrupeds. It is not to be supposed that serpents are by any means worse provided than other creatures with organs of locomotion, merely because they want the ordinary limbs. They have an enormous quantity of ribs (over 200) immediately beneath the



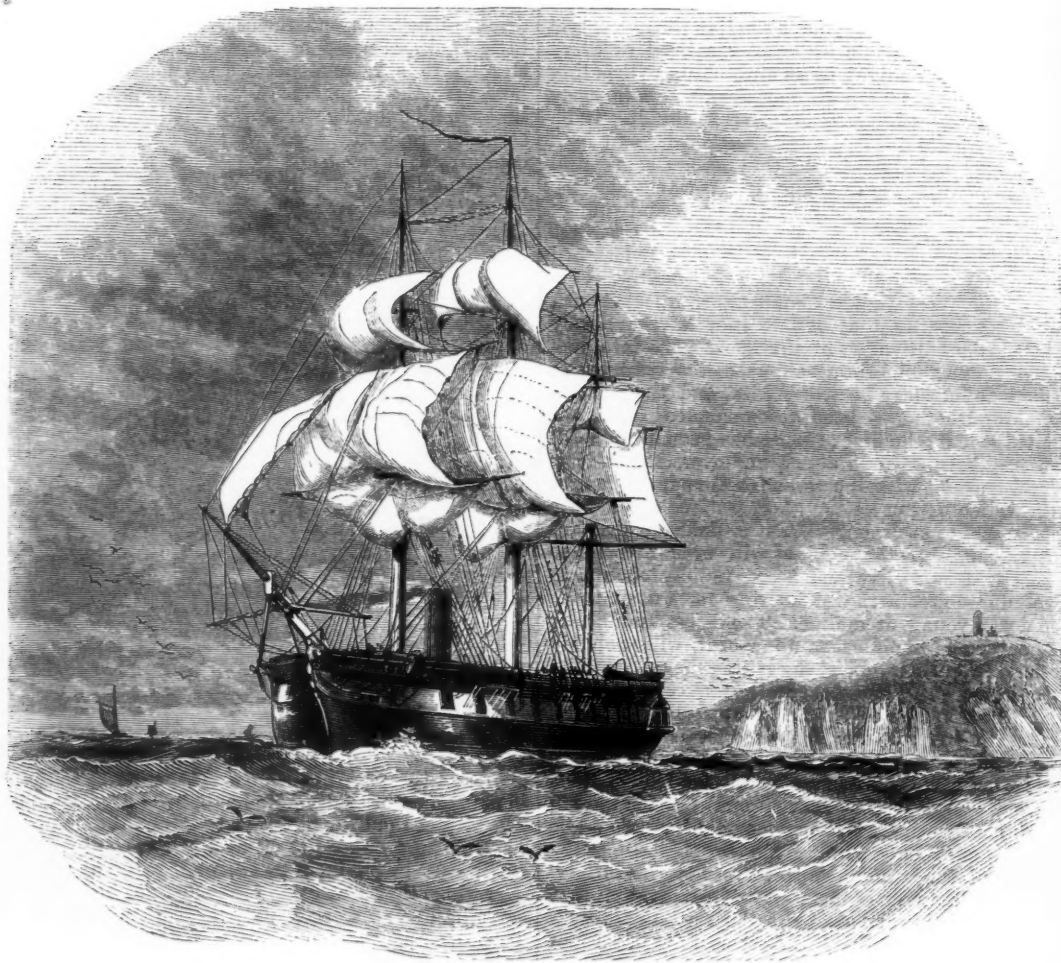
SKELETON OF SNAKE.

skin, and these are not connected together as they are in man and other vertebrate animals by a breastbone. The ribs of the serpent are free, and on the points of these it may be said to walk, much as centipedes or millipedes do on their legion of legs. The surface over which they attempt to pass must not be perfectly smooth, otherwise they cannot obtain a "footing." Thus, a serpent laid on a plate of glass would be as unable to move as a turtle that had been turned on its back; but on the surface of the ground they will probably outrun the fleetest of men. Pythons attack and devour animals which seem altogether beyond even the ophidian capacity for swallowing, thus they have been seen to swallow an entire goat, horns included. Having seized the victim firmly with their teeth, they kill it by coiling themselves, quick as lightning, round its body, and tightening their grasp till the victim is literally squeezed to death, and the bones of its body broken; they then swallow it, an operation which, if the creature be large, may take some hours. After such a meal the python becomes

torpid for several weeks until its food is digested, and during this time it is easily killed. When pressed with hunger the python does not hesitate to devour smaller individuals of its own kind, such a case having occurred some years ago in the Zoological Gardens. This is a failing probably common to very many of the so-called cold-blooded animals. The writer lately had an example of this among common newts which he kept in an aquarium. There were two of large size and a smaller one. Having omitted to feed them on one occasion, he was astonished on

the following morning to find that the smaller one had disappeared. Surmising from the well-fed appearance of one of the two remaining that the little one had met with foul play, Jeddart justice was executed on the suspected criminal, and on the body being opened, its guilt was established, the small newt being found in its stomach entire, but dead. The python lays an enormous quantity of eggs, which it piles together, and then coiling itself around them, hatches them by the heat of its body. It is the only serpent thus known to sit on its eggs.

THE CHALLENGER.



THE CHALLENGER PASSING THE NEEDLES.

AMONG the noteworthy events of the early summer was the arrival of the Challenger at Spithead, on the completion of her voyage round the world. It may be remembered that four years ago this vessel was fitted out at the instance of the Royal Society, for scientific research and deep-sea exploration. Captain G. S. Nares was selected to command the expedition, and, besides the usual staff of naval officers, Professor Wyville Thomson, F.R.S., as scientific director, three naturalists, a

chemist and physicist, and an artist and secretary were attached to the vessel. The hydrographic and magnetic work was undertaken by the naval officers, and the natural history department was placed in the hands of the scientific staff. While the scientific world awaits the publication of a full account of this remarkable voyage, we present the following brief summary, for which we are indebted to the "Times," where reports were published at various stages of the voyage.

The Challenger left England on the 21st of December, 1872, and the researches during the next year were confined to the Atlantic, four complete sections having been taken across it. The result of the deep-sea dredging was most satisfactory; some specimens were new, and others of great rarity. The vexed question was settled as to whether life existed below certain

places the Challenger proved that they were so by bringing up a portion of the bottom from less depths; and in some, where the time interval was carefully taken and published, with our present knowledge on the subject, the correct depth can be nearly approximated. When a certain quantity of sounding-line has run out, its mere weight, even without the aid



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Wm. J. H. H. H.
J. S. Hare

depths, and much valuable information was obtained, by serial temperatures taken from the surface to the bottom, relative to the great oceanic currents. The deepest water found was off the Virgin Islands, in the West Indies, where bottom was obtained at 3,875 fathoms. This depth has only been exceeded once—i.e., in the North Pacific Ocean, latitude 11° 24' N., longitude 143° 16' E., where a sounding was made in 4,500 fathoms. In all probability this depth of water will never be much exceeded. Those remarkably deep soundings taken by former navigators are undoubtedly entirely erroneous. In many

of under-currents, will make it continue to run as long as there is any on the reel; the intervals between which the marks on the line disappear beneath the surface will become gradually longer as the weight sinks, but there is a marked lengthening of the interval immediately it strikes the bottom, amounting to one minute and a half at 2,500 fathoms for 100 fathoms of line, and in that way the depth is determined; 3,000 fathoms depth was never found south of the equator; a fact which will be of special interest to geologists who have raised theories on the fact of there being most dry land in the Northern

Hemisphere; but, to counterbalance that preponderance, the water is not so deep in the south.

During the year 1873, North and South America, the West Indies, Western Islands, Madeira, Canary, and Cape Verde Islands, and Africa were visited, and 19,300 miles sailed over. After a refit at the Cape of Good Hope, the Challenger sailed for the South Seas in December, 1873. Marion Island and the Crozets were visited, the latter since brought into notoriety by the loss of the Strathmore; as with that unfortunate vessel, gales of wind and thick fogs were experienced by the Challenger. The Island of Kerguelen had been fixed on as an observatory station for the transit of Venus, which occurred in 1874, and, as it was desirable that it should be explored in order to settle the site of an observatory, the Challenger was entrusted with that duty. A month was taken in completing it, during which the eastern side of the island was surveyed and a site recommended, which was afterwards adopted. The western shores were altogether out of the question, on account of the mists accumulated by the prevailing westerly winds. Heard Island, to the south of Kerguelen, was next touched at. It is quite barren, and consists of one immense glacier. A party of American whalers are stationed there, engaged in the sea-elephant-fishery, which is very productive. It would be difficult to imagine a more dreary life than these whalers lead; they are relieved and the produce of the fishery is taken away every year.

The Challenger then sailed south until the Antarctic Circle was crossed, and she reached within 1,400 miles of the South Pole. Open pack ice was entered and great numbers of icebergs were seen, as many as 80 being counted at one time from the masthead. Some were 300ft. high and between two and three miles long. They were nearly all flat or table-topped, only the calves or small bergs presenting the curious appearance of Arctic bergs. The Antarctic continent of the American explorer Wilks (whose name, perhaps, will be best remembered in connection with the Trent affair) was sought for in vain. It was reported to have been seen by him when in command of the discovery ship Vincennes in 1834. As 1,300 fathoms of water were found on the supposed site, it was concluded that, if it ever existed, it has now sunk. Gales of wind, accompanied by driving snowstorms, render navigation in these seas neither safe nor pleasant, and the seamanship of the officers was severely tried in keeping clear of the numerous icebergs, to strike one of which would be destruction. The sea was full of life; innumerable whales spouted round the ship, and several kinds of penguins were seen. The water was also rich in surface crustacea, upon which great numbers of diomedea, procellaria, and prions fed.

Melbourne was reached on St. Patrick's Day, 1874, and the next three months were most agreeably spent in the Australian colonies. A line of soundings was next run to New Zealand, preparatory to a telegraph cable being laid; and afterwards, the Friendly Islands, Fiji, New Hebrides, Arrou, and Ki Islands were touched at, the natives being all found tolerably friendly. The Moluccas, or Spice Islands, were next visited, and expeditions made to the nutmeg, cinnamon, pepper, and cocoa plantations. Nothing can exceed the beauty of these islands, or the admirable manner in which the plantations are conducted. At Manila, in the Philippine Islands, they had an opportunity of seeing the enor-

mous cigar factories, in some of which 10,000 girls are employed. Then the ship proceeded to China.

At Hongkong, to the great regret of all, Captain Nares was called away, he having been selected to command the Arctic Expedition; but his successor, Captain Thomson, in a short time rendered himself equally popular.

In the early part of 1875 a good deal of old ground was again sailed over in the Sulu and Celebes Seas. A short time was spent at Cebu, one of the Philippine group, dredging for the beautiful Euplectella sponge, better known by its popular name of Venus's Flower-basket, and which is now not uncommon in our museums; numerous fine specimens were obtained. On the adjoining island of Mactan the great explorer Magellan was killed in an engagement with the natives in 1521. A cross, said to have been erected by him at Cebu, is pointed out with reverence by the Spaniards.

The Challenger next sailed to the north-eastern shores of New Guinea, and touched at Humboldt Bay, where the savages were found in all their native and naked grandeur. They were armed with spears and bows and arrows, and objected to exploring parties landing, standing with their arrows drawn to the head. They appeared to have no idea of the power of firearms, and there was no inclination to teach them the lesson. Notwithstanding the hostile attitude assumed when an attempt was made to land, they readily bartered their spears, bows, stone axes, ornaments, etc., alongside the ship for hoop-iron and beads. The natives are a fine race, although many were covered with some skin disease. The men wear boars' tusks thrust through their nostrils, which give them a ferocious appearance. Not one could be prevailed on to come on board, even by liberal offers of axes and nails, which would lead to the supposition that they had been visited by kidnappers. At Admiralty Island the natives were more friendly, and freely allowed parties to land. They were armed with obsidian-headed spears.

The Challenger then sailed for Japan, and on the passage obtained the deepest sounding, which has already been referred to. Two months were spent on the coasts of Japan and in the inland seas, and then the ship sailed for the Sandwich Islands, Society Islands, Juan Fernandez, and Valparaiso. Juan Fernandez was found inhabited by some Chilians engaged in the seal-fishery. A goat, descended from Selkirk's pets, has taken passage in the Challenger, and is called Crusoe. After leaving Valparaiso, the passages leading to the Straits of Magellan were entered at Cape Tres Montes, and the ship emerged into the Atlantic at Cape Virgins, the scenery being magnificent, particularly the fine glaciers, some of which extended to the water's edge. The Falkland Islands, Montevideo, Ascension, St. Vincent, and Vigo were visited on the passage home, and further researches made in the Atlantic by continued dredging, trawling, and sounding.

Photographs have been taken of the natives and of the principal places visited during the voyage, and make an interesting collection.

The equator was crossed six times, and the 180th meridian of longitude five times.

Total distance run, 68,500 miles; coals expended, 4,700 tons; number of days at sea, 713; number of days in harbour, 568; number of deep-sea soundings obtained, 374; number of serial temperatures, 255; number of successful dredgings, 111; number of un-

successful dredgings, 19; number of successful trawlings, 129; number of unsuccessful trawlings, 16; 243 men left England in the Challenger, of them 144 returned, 61 deserted, 10 died, and five went with their old commander in the Arctic Expedition.

We hope that Captain Allen Young, with the Pandora, may bring some tidings of the absent explorers; but whether we hear of them or not, we may be sure that Captain Nares will reach the Pole, and do all the other duties expected from him, if it is allotted to man to accomplish them. In case he should return bearded like old Father Christmas, so that he should be scarcely recognisable, we present his portrait, from a photograph taken just after his return from the Challenger, and before his departure for the north.

A SATURDAY AFTERNOON AT BOX HILL.

BY HENRY WALKER, F.G.S.

BOX HILL, between Reigate and Dorking, in Surrey, is believed by Londoners to be the most picturesque spot for landscape beauty in the south of England. Burnham Beeches? Richmond Hill? Well, these and many other favourite Saturday afternoon resorts within reach of town have much to give to the lover of sylvan scenery, but Box Hill is unique. How shall we picture it? Not only is it decorated with nature's choicest flowers and foliage, it is part of a wide landscape system which almost daunts whilst it delights the eye. One might think Box Hill a place where no gift of second sight is needed to enjoy all the pleasures of the natural scenery. But, as Ruskin and Kingsley and Ramsay have taught us, nature is like a picture-gallery; the art of observing her only comes by training and practice. A new power of seeing is, indeed, a faculty worth possessing. Who will act for us in our rural walks as the dervish in the Arabian Nights, that gifted man whose wondrous ointment, rubbed on the brows, enabled men to see forms and beings in nature invisible to ordinary sight?

An excursion to Box Hill with some modern dervishes, who have, perhaps, a greater gift of vision than their Arab prototype, may help us to acquire this power of second sight. As we roam the landscape with them, we may at least learn whether the more modern story of "Eyes and no Eyes" is still a tale full of wise and suggestive teaching. Let us try the experiment.

On a fine midsummer Saturday afternoon a goodly band of London holiday-makers, released from warehouse, mart, and office, assemble at the Cannon Street Station of the South-Eastern Railway. They are equipped with bags, havresacks, botanical vasculums, and other badges of the Field-naturalists' Club. What artful implements may be concealed within! Maps and compasses are certainly there, and the geologist's hammer glistens from many a belt. The gauze nets of the entomologist can also be detected, and aneroids, clinometers, and even pocket-spectroscopes probably form part of the equipment for the excursion. Two special railway carriages have been chartered for the party, and soon the train is speeding on its way to Box Hill.

The gift of second sight is soon brought into use on the way. Past Croydon we are steaming along

the valley in which the portentous waters of the Bourne rise from underground courses at certain seasons, prophesying, so the natives believe, dire catastrophes to the State and nation. Watching the landscape vigilantly, we approach Caterham Junction. Here a new world reveals itself to our enlightened eyes. How different the scene, now that we have left the tame region of the London basin. Huge green, motionless billows appear on the horizon; they commemorate the old ocean of the chalk, on whose dry and upraised bed we have now entered. These grand chalk downs, true to their family character, are treeless, and their vast and graceful contours stand out in all their grandeur. Hear what a prophet of English scenery has to say about them. "Those mighty downs, where the dizzy eye loses all standard of size and distance before the awful simplicity, the delicate vastness of the grand curves and swells." He who should visit the chalk downs unequipped with Kingsley's prose, or uninspired by Hine's famous pictures, does indeed lack the dervish's potent ointment on his brows.

Still among the chalk hills known as the North Downs, the most prominent physical features in the south of England, we plunge into the Merstham Tunnel. Our train rattles along with echoes which might almost scare the fossil dead that lie around us from their sleep. At length we emerge into the daylight at the south outlet. We find we have been carried down into the great Valley of the Weald. Again is the landscape changed, and a world of new landscape contours dawns upon us. The chalk domes beneath which we have burrowed, and which we turn to look back upon, now show themselves as a line of escarpment. They run east and west like a coast of grand and picturesque cliff. It looks as if the sea had deserted its coast-line, and left it here far inland. Down at the base of the escarpment, the broad expanse of the Weald Valley stretches until it is lost in the blue distance. It looks as if it had once been the bed of a large lake or bay; it is now covered with grass and trees, and vocal with the cries of sheep and oxen.

Under the brow of this grand cliff-like escarpment of the North Downs we travel westward for six or seven miles, passing Reigate on the way. This is the railway route Londoners should be careful to take, if they would approach Box Hill by the most striking and instructive way. This lofty inland coast-line of scarped cliff on our right, serrated here and there with trees, forms an ever-varying horizon and a succession of surprises as we are speeding along.

Just before Dorking the escarpment is broken through by the River Mole; at the gorge thus formed we see the site of the famous Battle of Dorking. The south-east angle of the escarpment and the Mole gorge is Box Hill. Our party have already identified the spot by the acres of wild box tree which decorate its sides, and give it its name.

At Box Hill Station our guide comes to the front. He is a skilled and veteran explorer of the country. We are, it seems, to pass up the gorge of the Mole, and so to reach Box Hill. Hammers, nets, and vasculums are all got ready for use; every eye seems quickened and stimulated to observe the new world which awaits us, for everything in this strange county is new to the dwellers in Middlesex. The

forms and contours of the ground, the trees and plants, even the insects that flit by us, and the molluscs feeding in the hedgerow, reveal a new order of things to those of us who have eyes to see.

Our first find! The conchologists of our party show the first trophy. From the sandy hedge-bottom they bring the beautifully striated shell of the little cyclostoma ("circle-mouth"), one of the most elegant of our land-shells. This timid little creature is hardly ever found away from limestone soils. In this district it is generally found at the junction of the chalk with the alluvia. Two specimens are forthwith consigned to chip boxes, and duly labelled. The discoverer tells us privately that he is making a collection of our land and freshwater shells. He will find a few other species at Box Hill, as we shall show.

In the roadway a stone is picked up by a keen-eyed observer. It is full of shells of a freshwater species—"paludineæ," as our guide calls them. The stone itself is a fragment of the so-called Paludina limestone, a rock which is found in its natural position a few miles away in the Weald Valley. This specimen, too, is duly labelled and consigned to the bag: the finder will study it at home with "Lyell's Elements" and "Jukes's Manual." ("No Eyes" would have left it in the road, to be crushed by the next cart-wheel.)

Suddenly our guide opens a gate into a ploughed field. "What *can* there be here?" says one of the ladies of the party. Recollect we are in a valley of gravel and alluvium—the Mole gorge. In this field of alluvium remains of elephant are found, with flint implements of primeval man. Broken flints gleam all over the surface. Our guide says they remind him of the ploughed fields in Mexico, in which flakes and knives of obsidian glisten still more abundantly. (This obsidian is a glassy lava, of volcanic origin, of which the natives make mirrors and razors, and other cutting implements. In his book on Anahuac, Mr. Tylor tells us that the chips struck off in making these obsidian implements are heaped up into veritable mountains, so enormous was the manufacture of this material.) Should we find an ancient flint implement manufactory in this Mole gorge? Some of our party privately resolve on a surreptitious visit to this field another day to examine for themselves the "valley alluvium of Pleistocene age." (See Lyell and Jukes again.) But other attractions now await us.

Here, in the Frimley Meadows, are the famous swallow-holes of the River Mole. In very dry seasons the river entirely disappears for nearly three miles of its course, sinking into subterraneous gullies and caverns below. The phenomena have been looked upon with a great deal of mystery. Our guide says the inhabitants of this tract, no less than the Spaniards, may boast of having a bridge that feeds several flocks of sheep. The water rushes through crevices in the river bed, as through a cullender; in some places it may be distinguished in its transit to the gullies beneath. To-day, however, the river is full, swollen by the long rainy season; we can only discern the place of the "swallows" by the sudden cessation of the current at certain spots where there is a still surface, sometimes tending to an eddy. Visitors who want to see the swallows of the Mole to advantage should go in a dry season.

A little further on we reach the Burford Bridge Hotel. One of our number espies some curious flag-stones paving the entrance. These, again, might

be easily missed by No Eyes. Their surfaces show beautiful ripple marks, the impress of wavelets which passed over them thousands of years since, before they were petrified. How permanent are nature's lithographs! "Horsham sandstone" is the name given to these ripple-marked flags. Horsham is also in the Weald, and the material is extensively used in the locality for building purposes.

We are now to quit this interesting gorge of the Mole. We have reached the western foot of Box Hill, and the chalk steep is before us. Those who have eyes will now find plenty to see. The beautiful flora of the chalk hills (how different from the flora of Middlesex!) begins to greet us at once, and many a little wildling is plucked on this western slope. The ever-welcome little milkwort—the only British species of the order—abounds. The great torch mullein, an exceedingly noble plant, shines near the box-trees; and so does the yellow chlora, with foliage of deeply glaucous hue. The viper's bugloss, one of the handsomest of our native plants, is yet more conspicuous. But the slope is so steep, we pause for breath. Let us measure the angle with a pocket-clinometer. "Thirty degrees," says one of the company, an instructor at the Military College at Sandhurst, who is perhaps wondering how he could get artillery to the summit.

Now we are at the top of Box Hill, surveying the outstretched landscape. No one has yet been disappointed with the glorious prospect. The best "coign of vantage" is one which commands not only the gorge of the Mole, Deepdene, and Leith Hill, but the great Valley of the Weald as well, a valley so wide that it is impossible on any but a clear day to see across to the opposite boundary. Let us, however, clearly understand where we are. The sight of a wide landscape, however beautiful, soon becomes cloying if we view it without intelligence.

This grand Valley of the Weald is eighty miles in length, running east and west, and from twenty to forty miles in breadth (north and south). The escarpment on which we are standing is the northern boundary (the line of the North Downs), and right across the valley is a similar escarpment, forming the south boundary (the South Downs). Box Hill is the most favourite spot on this side the valley, and just opposite to us is the Devil's Dyke at Brighton, quite twenty miles away, among the South Downs.

Here there is an easy plan of the landscape, which, vast and varied as it is, can be resolved into an immense oval-shaped valley, enclosed for the most part by a continuous escarpment, the easiest topographical points for our purpose being Box Hill and the Devil's Dyke, rival picnic resorts on rival chains of hills.

Our friends, Eyes and No Eyes, are both enjoying the prospect in their way, but No Eyes has soon seen as much as he cares for. The scene is undoubtedly beautiful, and he thinks that, after all, "Box Hill isn't a bad place for a quiet smoke!" But Eyes is still on the alert. Let us see what he is looking at.

Standing on this old inland coast-line or escarpment, and looking down towards the valley, one can distinguish three separate and continuous terraces of vegetation. These afford a remarkable clue to the underlying rocks. The chalk on which we are standing is clad with beech, box, and yew. The terrace below us is the greensand, and here the firs are in almost exclusive possession; below, in the Valley of the Weald clay, are the oaks. Thus the succession

of different species of trees marks the succession in the rocks which support them—a truly instructive spectacle, which Eyes descants upon with enthusiasm. As the old coast-line projects or retreats in its course, so does the vegetation peculiar to it. At Leith Hill, where the greensand escarpment advances far into the Weald Valley, the firs have followed. This correlation of rocks and vegetation is one of the most pictorial and striking lessons to be learnt at Box Hill. The art of reading the geological structure of a country by its trees is a perennial enjoyment in our rural rambles, and may soon be acquired.

And now let us complete the landscape picture by giving the history of this great Valley of the Weald. A mere glimpse of the accompanying illustration will tell the wondrous tale. We here see at once what this old inland coast-line at Box Hill, and its fellow-escarpment at the Devil's Dyke opposite, really are, and how they came into existence.



DIAGRAM SHOWING THE DOME-SHAPED HILL WHICH ONCE STRETCHED ACROSS FROM BOX HILL TO THE DEVIL'S DYKE—20 MILES.

- a. The chalk escarpment.
- b. Minor escarpments of lower greensand.
- c. Weald clay, forming plains.
- d. Hills of Hastings sand and clay.

The chalk, etc., once spread across the country, as shown in the dotted lines.

A huge dome-shaped hill, instead of a valley, once occupied the wide area before us. At that time there were no Straits of Dover, for the longer axis of the hill stretched from Hampshire on the west, to the Bas Boulonnais in Normandy. The dotted lines are a prolongation of the present strata, and show the former structure of this great dome-shaped hill.

The hill has long since been worn away by natural forces, for the most part, perhaps, when the country was beneath the sea; but the escarpments, which formed, as it were, the spring of the arch, remain to this day. All this, and much more, our guide illustrates with admirable diagrams, as well as eloquent speech.

Only let the visitor to Box Hill, who has no guide, take in his pocket Ramsay's excellent "Physical Geology and Geography of Great Britain," and seat himself on the escarpment looking south or south-west, and he will soon read the marvellous history of this Wealden Valley for himself.

The botanists, entomologists, and shell-hunters of our party now come trooping in. They have, indeed, used their eyes to some purpose. What floral trophies to take back to town! Among them are the fly orchis, bee orchis, large butterfly orchis, pyramidal orchis, green man orchis, and tway-blade. And these are not all the orchids to be found at Box Hill. One botanist, who visits the place every year, has made a list of eighteen wild orchids he has taken within two miles of the spot.

The shell-hunting section of our party bring in the following specimens:—*Helix caperata*, the wrinkled snail, taken on palings; *Helix lapicida*, the rock-snail, found on the trunk of a beech; *Clausilia laminata*, the laminated close-shell, also on beech; and last, but not least, the giant apple-snail, *Helix*

pomatia. There is a common belief that this creature was a Roman dainty introduced into Britain during the Roman occupation. In any case, it is a wonderfully fine shell. Altogether, adding our favourite *Cyclostoma*, which also inhabits Box Hill, our shell-collectors have not done badly in a raid of half an hour.

The excessive rainfall had been much against the success of our entomologists, and our excursion has not yielded its usual supply. Indeed, no butterflies at all have been seen, but the "take" of moths has been sufficient to illustrate the local character of the species. The first insect we are shown is the dew-moth, quite a local species, common at Box Hill; then came the lace-bordered wave-moth, equally local; then a species whose larvæ dwell in the seed-pods of the dianthus and other allied plants (the moth itself was found feeding at the flowers of wild pink); the beautiful beaked hypena, a very local species; the golden-clawed crambus, found chiefly on chalk downs; another little fellow obtained almost solely in wild-thyme tracts; another, the larvæ of which feed in the beech-nuts (he was shaken from the beech-tree); and another, a small winged plume-moth, peculiar to chalk downs. We might go on to extend the list to species more rare and valuable than these, but less local. It is, however, the local character of these species which gives the great charm to our excursion. We have already seen the local rocks, trees, flowers, and shells in their intimate mutual relationships. We now see the insect life of the district obeying the same instructive laws. Here is a principle to guide our observations of nature in the future.

Never did a happier party descend Box Hill at the close of a summer afternoon than we, as we footed it among the bee orchises and burnets, to the railway. Never did a more beautiful evening sun light up the horizon. The sand-hills towards the Hog's Back stretched forward like so many natural bastions into the oak-covered Wealden below. The ancient haunt of the iguanodon and plesiosaurus is now the home of a pastoral race, and dotted with refinement and mansions of culture.

"Arborescent ferns, palms, and yuccas, instead of oaks," says Dr. Mantell, speaking of the ancient country of the Weald, "constituted its groves and forests; delicate ferns and grasses the vegetable clothing of its soil; and in its marshes equisetum and kindred plants prevailed. It was peopled by enormous reptiles, among which the colossal iguanodon and the megalosaurus were the chief; crocodiles and turtles, flying reptiles and birds, frequented its fens and rivers, and deposited their eggs on its banks and shoals, and its waters teemed with lizards, fishes, and mollusca. There is no evidence that man ever set his foot on that wondrous soil, or that any of the animals that are his contemporaries, found there an habitation."

It is this romantic spot which has now become the glorious landscape we survey from Box Hill, with its old inland coast-lines, its astonishing physical scenery, its rivers running underground for miles, its rocks, trees, flowers, and insects, as novel to the Londoner as some distant country. How delightful to unveil the varied and wonderful world which lies around us, so unsuspected and yet so near! How profitable to visit such scenes in sympathetic company, each member of which rejoices to tell all he knows! In short, how pleasant to go out with Eyes for a companion, instead of No Eyes!

THE MYSTERIOUS LODGER.

A PERSONAL RECOLLECTION OF AN OXFORD D.D., AND FELLOW OF QUEEN'S.

I.

LATE one summer's day, many years ago, a gentleman of grave, if not of reverend bearing, called upon my mother, who then resided at Windsor, and asked if she would allow him occasionally to join her family. He had heard, we did not ask how, that my mother, a widow, received boarders in her household. He disliked, he said, the publicity of a hotel, and wished for a quiet home, where his own reclusive habits would not be objected to.

My mother assented to the stranger's proposal, although he neither asked nor offered references, for he was evidently a gentleman; and terms having been agreed upon, he announced himself as the Rev. Dr. M., of H., naming a village about fifteen miles distant, and requested to be allowed to remain then and there, to which my mother consented. Dr. M. (I merely give the initial, but the portrait will be recognised by old Oxonians who knew the original) expressed his thanks, and asked to be shown to his room; and this being done (luggage he had none, except a small valise, which he carried in his hand), my mother came to tell the circle in the drawing-room of the advent of a stranger.

When summoned to tea, Dr. M. appeared rather flustered at seeing several persons assembled. He had not asked any questions about the household; but though shy as a stranger, he was soon at his ease, especially when he found that Mr. Scotland, of Magdalene Hall, Cambridge, was a member of his cloth. Very lively was the argument carried on during the evening on the superior claims and advantages of their respective Universities, with remarks on mutual friends. And so the evening passed more pleasantly than might have been expected. Dr. M. pleaded fatigue, having walked from H. that afternoon, and he retired early; and then, as a matter of course, comments were made on his appearance and manner, and conjectures formed as to his probable age by the two ladies, the Cantab, and a young artist, who, besides my widowed mother and myself, formed the party.

After breakfast the next morning he took his leave, promising to be with us again on the following Sunday in time for a late breakfast, previous to attending Divine service at St. George's Chapel.

Let the reader now in imagination transport himself to the doctor's house at H., which I will describe, with his mode of life there, as we learned from those who knew most about him, and as we afterwards had opportunities of observing.

With keen, yet furtive glance, he gazed around, to see if his return were noticed, for it was one of his peculiarities to fancy that he was constantly watched. No one being in sight, he admitted himself at the outer gate, cautiously locking it behind him. Before entering the house he reconnoitred the grounds, and satisfied himself that he was alone. Then he unlocked a small back-door, and found himself in an outer stone vestibule, and in darkness; it was not pleasant, but probably he was used to this mode of entering his abode. He deposited on the floor his umbrella and a package or two he carried, and then unbarred the shutters and admitted the daylight. Passing through a large kitchen, whose disused range and rusty bars told of

the long absence of a cheerful fire (and no room in a house looks so dismal and unhomelike without a fire as a kitchen), he traversed several passages and reached his study-door; here he halted, and again glanced nervously around, and listened intently, but encountering nothing within sight or sound, with somewhat more firmness he unlocked the door, and was at home!

Home? What a misnomer to call this cheerless, desolate-looking place home!

Divesting himself of his clerical hat and coat, he donned an antiquated dressing-gown, and proceeded to light the fire. Although it was high summer elsewhere, this room, and indeed the whole house, smelt damp and mildewy. While the fire was burning up, the doctor fetched the packages he had left in the vestibule, and forthwith began to arrange in a bookcase the small stock of provisions he had purchased on his way, talking to himself all the while, and then with his own hands he prepared to cook his midday meal, for which his long walk had given him a good appetite.

A domestic servant he had not had for years; as a rule the sex were afraid of him; and from his habit of muttering to himself, and leading so strangely solitary a life, the country people deemed him distraught; and so no doubt he was on some points, although occasionally, when he chose to unbend, he could be an intelligent companion enough. An old laundress, who had known him for years, was the only person admitted into his house. Once a week she called for his linen, which she returned in a few days, washed and mended; and she set the place to rights as far as he would allow her.

While the doctor is taking his solitary meal, enriched, however, by a few glasses of good old port wine, the one luxury from which he never debarred himself, we will glance at the adjoining rooms, and first the museum, into which, indeed, Dr. M. himself peered curiously during a break in his culinary labours, and seeing that all there was *in statu quo*, he resumed them with fresh vigour.

From the study, through a substantial door, covered with what had once been red cloth, under which were inlaid strong crossbars of iron, the museum was entered. It was an oblong room of some twenty-five feet by about sixteen feet, and rather lofty for its size. Having three recessed windows it should have been light also, but the place was altogether so crammed with Egyptian and other antiquities, that faint and few were the gleams of light which found their way into its darksome precincts. To attempt to catalogue its heterogeneous contents is far beyond my power; suffice it to say that, on Dr. M.'s own showing, and he was no boaster, the assemblage of Assyrian, Babylonian, and Egyptian antiquities far surpassed in rarity and value any other private collection of similar objects in the kingdom. Belzoni was the object of his idolatry, and here was his shrine.

One modern article the room contained, and this was a somewhat powerful electric battery.

On the opposite side of the spacious hall, and of similar dimensions to the museum, was the dining-room, whose massive furniture was dusty and moth-eaten from disuse; while a smaller morning-room

answered to the study; but these were seldom entered, and the entire back of the house, never. These apartments consisted of a drawing-room of elegant proportions, flanked by a boudoir and a conservatory. No human foot had trodden there since the death of his mother and Lucy, long years ago. Lucy! who was she? Ah! "thereby hangs a tale." Of course, the upper-floor comprised several dormitories, but tenantless, cold, and chill they were, looking the very abodes of discomfort.

On Sunday morning the doctor returned to us at Windsor, as he had arranged, and after a substantial breakfast, seemed not to be over-fatigued by his walk of fifteen miles, and was quite ready in time for the service at St. George's Chapel—"the cathedral," as it was then commonly termed in Windsor; I suppose because the service was conducted after the cathedral fashion. Intensely he enjoyed listening to the tones of the magnificent organ, touched by so masterly a hand as the one which then drew forth from it strains of matchless eloquence.

On this, and on subsequent visits, Dr. M. attended the second service at St. George's in the afternoon, and then, after tea, my knowledge of sacred music was tested to the utmost. How delightedly he would listen to the grand strains which then characterised Church psalmody. Of Luther's Hymn and kindred compositions he would never tire, nor had he much consideration for my fingers or my voice. He disliked the modern style of Church music, which was occasionally beginning to prevail in some places of worship, calling it irreverent and almost profane.

In Dr. M.'s constantly-recurring visits to our house, a gradual change was apparent in his manner; he became—especially when my mother and I were alone with him—much more companionable and less reserved. He told us much relating to the circumstances of his previous life, and repeatedly and constantly he urged us to visit him at his own abode, promising to display to us the untold treasures of his museum, which he had never shown to mortal eyes since —; and then he faltered and broke down, only to renew his request at the next opportunity.

But though we began really to discover in Dr. M. some traits which, when further developed, might lead to our entertaining a feeling of friendship towards him, we could not so wholly overcome our undefined fear of him and distrust of his peculiarities as to consent to enter his gloomy abode *alone*, and he would have thought an escort an intrusion; and so we never went.

Indeed, every member of our circle had noticed Dr. M.'s growing partiality for my dear mother's society, and the almost deferential manner he observed towards her, in which, however, there was nothing assumed or constrained; all seemed to be an emanation of a more natural feeling than we had hitherto given him credit for possessing.

Often Dr. M. would detain my mother when she was about to leave the room, and appear to be on the point of making some confidential communication; and then he would falter and hesitate, and perhaps offer some trifling excuse, and go away himself. This occurred so frequently as to excite our surprise, but Mr. Scotland cleared the matter up. His bed-chamber adjoined that of Dr. M., and one morning the former gentleman entered the breakfast-room,

looking mysterious and mischievous; evidently he was the depository of some important secret, which he longed to divulge. The upshot of his communication was that the previous night he had heard the doctor pace up and down for above an hour, muttering to himself. "Then there was a lull, and I thought he was preparing to go to bed, and would allow me to go to sleep. But no! presently he resumed his walk, and then he spoke so plainly that I could not choose but hear all he said." Mr. Scotland paused, and looked oddly, as I thought, at my mother.

"Well," she said, quietly, and Mr. Scotland continued his narration.

"It seemed to me as if Dr. M. were apostrophising some one, and far more energetically than one would expect from his usually cold, impassive demeanour; then he paused, and began to recount your virtues and good qualities, Mrs. Prior, with which we are all acquainted. Then came another pause, and he appeared to be calculating 'ways and means,' which were ample enough. 'Three thousand a year!' Dr. M. repeated, more than once. 'Three thousand a year! and of what use is it to me? I know no comfort except when I am here! And yet am I right — am I justified in staying? Oh, mother! oh, Lucy!' and I fancy I heard sobbing. Another pause, and Dr. M. went on: 'I must die some day, and then all this money, which has been accumulating for so many years, must go to those distant cousins who scarcely know of my existence. Why should I leave them large fortunes? why may I not gratify my own inclinations, and marry Mrs. Prior? I wish I dared to do so.'"

My mother involuntarily started, and Mr. Scotland proceeded: "Over and over again Dr. M. asked himself this question, appealing at intervals to his mother and Lucy (who could she be?), as if entreating their sanction and permission to do as he wished. Then you came in for a share of Dr. M.'s commendation, Miss Florence, and truly hearty it was. 'But how,' after a little silence, he continued, 'could I bear to see any one in those rooms! and yet, why not? I *must* ask Mrs. Prior to be my wife; surely she would not refuse me; I could not endure that! I *must* ask her, or I must leave the house; I cannot see her again without ascertaining her inclinations; and yet, perhaps, I had better start off early, and think again.'"

"There!" concluded Mr. Scotland, "now you know all I know, Mrs. Prior, and can form your own inferences. Of course it is too delicate and important a subject for me, as an almost stranger, to advise in; still, I must say, I do not think you need have any fear of Dr. M., and it is evident there is some natural feeling left in him yet, if only he would give it fair play, and not crush it under that forbidding manner."

"Dr. M. has seemed more sociable with us all lately," remarked my mother, feeling that she was expected to say something.

"Yes; and especially observant of you, Mrs. Prior," replied Mr. S. "Many a time I have caught his glance fixed upon you, and wondered what it meant. Now the secret is out; but it remains to be seen whether he can screw his courage to the questioning-point."

"Very likely Dr. M. may change his mind on his journey home, and we shall hear no more of his passing inclinations," suggested my mother.

"Very possibly," replied Mr. Scotland. "The

fact is, Dr. M. has a sad lack of moral courage, and one cannot depend on his being in the same mood of mind for two minutes together."

"He is an unfathomable riddle," I remarked; "but I think there is some good in him."

"I think so too," rejoined Mr. Scotland; "but what could he mean about his mother and Lucy?"

"I believe I can explain that portion of his spoken reverie," said my mother. "Dr. M. told me a long story once of a promise he had made to his mother on her death-bed, that he would marry a young girl whom she had adopted, and I fancy he holds that promise still binding upon him."

"And she died, and his whole life was thenceforward blighted," I rejoined; "one cannot but pity him."

When Mr. Scotland left the room, I asked, "Well, dear mamma, what do you think of this extraordinary communication?"

"I scarcely know, Florence, what to think of it, except that very probably we shall never hear the subject mentioned again," she replied.

"But presuming that he follows it up by addressing yourself, what should you think of it?"

"Again, I repeat, I scarcely know, and I would rather not discuss the topic," replied my mother: "the temptation to secure independence for myself and my children would be great, but I feel a strange repugnance to the sacrifice that it would involve; however, let us say nothing about it for the present."

The following Sunday brought Dr. M. at the usual hour, but looking haggard and careworn. It was quite evident that sleepless nights and unquiet days had been his portion since we had last seen him. He grew a little less moody as the day progressed; but, contrary to his habit lately, he seemed to avoid my mother, as if he were afraid of trusting himself alone with her, lest his inclinations should overcome his resolutions. Mr. Scotland watched him narrowly, but cautiously, and again frequently detected his furtive glance directed towards her, while the firmly-compressed lips told of the stolid determination to crush out the feeling which strove, though unsuccessfully, to assert itself.

The sacred music in the evening appeared to soothe Dr. M.'s excited feelings more than usual, and on leaving us for the night he took my hand, quite kindly for him, and thanked me repeatedly for "the balm I had administered to him."

Once in his own chamber, Dr. M.'s unquiet mood returned, and Mr. Scotland heard him pacing the room and holding long arguments with himself, generally concluding them, however, by repeating, in most melancholy tones, "No, I dare not! To break the solemn promise I gave to my mother and Lucy would disturb them in their quiet graves. I am doomed to be wretched. I must bear it—and yet *she* might make me so comfortable! And Florence's music—how greatly it soothes and quiets my perturbed spirits! It is hard—it is very hard." And then the weak, vacillating man sighed and groaned, and sometimes Mr. Scotland fancied he sobbed unrestrainedly.

"Poor, foolish man!" said Mr. Scotland, in telling all this to my mother and myself the next morning; "for an absurdly superstitious fancy he is sacrificing all the peace and comfort the future might bring him—that is, supposing that you could make up your mind, Mrs. Prior, to undertake the onerous

task of bringing this ridiculous man to see things through a common-sense medium.

"And you would have your share of the task too, Miss Florence," continued Mr. Scotland, addressing me; "but yours would be the more pleasing part of chasing away by melody the phantoms that haunt the poor man, and of dispelling the nonsensical vagaries which have taken such a firm hold of his mind. I wish he would give you both the opportunity of exercising your beneficent influence upon him."

But he never did, though often he seemed to be on the very verge of doing so; and my mother! whether she would have consented to become his wife I really cannot say, since she never had the actual alternative submitted to her decision.

Varieties.

VISITING INFECTIOUS CASES.—Typhus fever was raging like a plague; and as, taking due precautions against infection, I visited every case I was called to, nor fled from any I happened to meet, I had often to face that terrible disease, and with one, two, or three lying ill of it all in one room, to breathe a pestilential atmosphere. The precautions I took were very simple, and, with God's blessing, they perhaps contributed materially to my protection. I insisted on the door being left open while I was in the room, and always took up a position between the open door and the patient, and not between the patient and the fireplace; thus the germs of the disease thrown off in the breath and from the skin of the patient never came in contact with me, but were borne away to the fireplace, and in the very opposite direction, by the current of air which passed me before becoming charged with the noxious matter.—*Autobiography of the Rev. Dr. Guthrie*, vol. i. 195.

PRICES FOR PLACES TO VIEW CORONATION CEREMONIES.—It may be interesting to some of the readers of the account given in the "Leisure Hour" of the coronation of George III. and his queen, to hear what were the prices given for views of similar ceremonies from the time of William the Conqueror to that of George II. The following extract is taken from the "Annual Register" for the year 1761. The writer, after stating what, at George III.'s coronation, were the charges for good places, says, in a note, that "On consulting Stowe, Speed, and other antiquaries with regard to the prices formerly given, it appears that the price of a good place at the coronation of the Conqueror was a blank, and probably the same at that of his son, William Rufus. At Henry I's it was a crocad, and at Stephen and Henry II's a pollard. At Richard I's and King John's, who was crowned frequently, it was a suskin, and rose at Henry III's to a dodkin. In the reign of Edward the coins begin to be more intelligible, and we find that at his coronation a Q was given, or the half of a fering, or farthing, which is the fourth part of a sterling, or penny. At Edward II's it was a farthing, and at his son's, Edward III, a halfpenny, which was very well given. In Richard II's thoughtless reign it was a penny, and continued the same in that of Henry IV. At Henry V's it was two pennys, or the half of a grossus or groat, and the same at that of Henry VI, though during his time coronations were so frequent that the price was brought back to the penny or halfpenny, and sometimes they were seen for nothing. At Edward IV's it was again the half-groat, nor do we find it raised at those of Richard III or Henry VII. At that of Henry VIII it was the whole groat or grossus; nor was it altered at those of Edward VI or Queen Mary; but at Queen Elizabeth's it was a teston or tester. At those of James I and Charles I a shilling was given, which was advanced to half-a-crown at those of Charles II and James II. At King William's and Queen Anne's it was a crown; and George I's was seen by many for the same price. At George II's some gave half-a-guinea." The increase in the charge made at George III's coronation would seem to be very considerable, for we are told that "the front seats in the galleries of the abbey" (o Westminster) "were let at ten guineas each, and those in commodious houses along the procession at no less a price." Also that "the prices in the ordinary houses were from five guineas to one guinea, so that one little house in Coronation Row, after the scaffolding was paid for, cleared £700, and some large houses upwards of £1000."